REMARKS

Summary of the Office Action and this Amendment

In paragraph 2 of the office action mailed 6/14/06, the examiner states:

Claims 1-18 are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. The language of the claims raises a question as to whether the claims are directed merely to an environment or machine which would result in a practical application producing a concrete useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

Claims 1-18 appear to be program per se. These claims are rejected because applicant's disclosure discloses both tangible (e.g., CD-ROM, CD-R, kCD-RW, DVD+-RW, machine-readable data storage mediums or media) and non-tangible (e.g., Signal bearing medium, Transmission media) embodiments. Examiner Suggests to change the signal bearing medium to machine readable data storage medium in the claims.

In paragraph 3 of the office action the examiner states:

Claims 1-5, 10-12 and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by **Guruprasad Bhat.** (Bhat hereinafter) (US PGPub No. 2003/0055808).

In paragraph 4 of the office action the examiner states:

Claims 6-9 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Guruprasad Bhat.** (US PGPub No. 2003/0055808) as applied to claims 1-5, 10-12

and 19-20 above in view of Weber et al. (Weber hereinafter) (U.S. PGPub No. 2002/0184360).

In paragraph 5 of the office action the examiner states:

Claims 16-18 are rejected under 35 U.S.C 103(a) as being unpatentable over **Guruprasad Bhat.** (US PGPub No. 2003/0055808) as applied to claims 1-5, 10-12 and 19-20 above in view of **Weber et al.** (**Weber** hereinafter)(U.S. PGPub No. 2002/0184360) further in view of **Guruprasad Bhat.** (**Gbhat** hereinafter)(US PGPub No. 2003/0055862).

In this Amendment, the applicant has amended claims 1-20. Support for the amendments can be found, for example, in the drawings, in the originally filed claims, and in the specification on pages 14-17. No new matter has been added. Claims 1-20 are now pending in the application.

Claim Rejections - 35 U.S.C. 101

As mentioned above, in paragraph 2 of the office action, the examiner states: "Claims 1-18 are rejected under 35 U.S.C. 101 as being directed to nonstatutory subject matter." The applicant submits that claims 1-18 as originally filed are directed to statutory subject matter under 35 U.S.C. Section 101. However, in the interest of advancing this application to allowance, in this amendment the applicant has amended independent claim 1 so the preamble now recites a "machine readable data storage medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus" as suggested by the examiner, to overcome the 35 U.S.C. 101 rejection. Claims 2-18 are dependent upon claim 1, and have been amended consistent with the amendment to claim 1. These amendments to claims 1-18 have been made to make it more clear that the "program of machine-readable instructions", as claimed, is embodied in a tangible medium. Accordingly, the applicant submits that claims 1-18 are directed to statutory subject matter. In this regard, MPEP § 2106 states, "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.... [A] claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory." MPEP § 2106 (8th ed., rev. 4, Oct. 2005). See, In re Lowry, 32 F.3d 1579 (Fed. Cir. 1994). Accordingly, the applicant respectfully submits that claims 1-18 are directed to statutory subject matter, and that the rejection of claims 1-18 under 35 U.S.C. 101 should be withdrawn.

Claim Rejections - 35 U.S.C. 102 and 35 U.S.C. 103

a. Legal Criteria for 35 U.S.C. 102

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A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). . . . "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

MPEP § 2131 (8th ed., rev. 4, Oct. 2005).

b. Legal Criteria for 35 U.S.C. 103

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

MPEP § 706.02(j) (8th ed., rev. 4, Oct. 2005).

The mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless

the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

MPEP § 2143.01 (8th ed., rev. 4, Oct. 2005) (emphasis in original).

When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to:

- (A) The claimed invention must be considered as a whole;
- (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination:
- (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and
- (D) Reasonable expectation of success is the standard with which obviousness is determined.

Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

MPEP § 2141 (8th ed., rev. 4, Oct. 2005).

In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); Schenck v. Nortron Corp., 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983).

MPEP § 2141.02 (8th ed., rev. 4, Oct. 2005).

c. Discussion Regarding the 35 U.S.C. 102 and 35 U.S.C. 103 Rejections

As mentioned above, in paragraph 3 of the office action the examiner states: "Claims 1-5, 10-12 and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Guruprasad Bhat. (Bhat hereinafter) (US PGPub No. 2003/0055808)". Also, in paragraph 4 of the office action the examiner states: "Claims 6-9 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guruprasad Bhat. (US PGPub No. 2003/0055808) as applied to claims 1-5, 10-12 and 19-20 above in view of Weber et al. (Weber hereinafter)(U.S. PGPub No. 2002/0184360)." Additionally, in paragraph 5 of the office action the examiner states: "Claims 16-18 are rejected under 35 U.S.C 103(a) as being unpatentable over Guruprasad Bhat. (US PGPub No. 2003/0055808) as applied to claims 1-5, 10-12 and 19-20 above in view of Weber et al. (Weber hereinafter)(U.S. PGPub No. 2002/0184360) further in view of Guruprasad Bhat. (Gbhat hereinafter)(US PGPub No. 2003/0055862)."

The independent claims currently pending are claims 1, 19 and 20 as amended herein. The applicant submits that all of the independent claims as amended herein include limitations that are not described in Bhat, and that are not taught or suggested by Bhat, Weber, or Gbhat.

Claim 1:

The applicant submits that claim 1 as amended herein, includes at least the following limitations that are not described in Bhat:

wherein obtaining information from the CIMOM includes, given the unique ID for the Disk Array System, obtaining information regarding all component Storage Pools of the Disk Array System, and obtaining information regarding all component Volumes of the Disk Array System;

creating at least one Storage Object, wherein creating the at least one Storage Object includes identifying entities attached to the Disk Array System, and identifying parent-child relationships between the entities

Claim 19:

The applicant submits that claim 19 as amended herein, includes at least the following limitations that are not described in Bhat:

wherein obtaining information from the CIMOM includes, given the unique ID for the Disk Array System, obtaining information regarding all component Storage Pools of the Disk Array System, and obtaining information regarding all component Volumes of the Disk Array System;

creating at least one Storage Object, wherein creating the at least one Storage Object includes identifying entities attached to the Disk Array System, and identifying parent-child relationships between the entities

Claim 20:

The applicant submits that claim 20 as amended herein, includes at least the following limitations that are not described in Bhat:

wherein obtaining information from the CIMOM includes, given the unique ID for the Disk Array System, obtaining information regarding all component Storage Pools of the Disk Array System, and obtaining information regarding all component Volumes of the Disk Array System:

creating a plurality of Storage Objects, wherein creating the plurality of Storage Object includes identifying entities attached to the Disk Array System, and identifying parent-child relationships between the entities

In view of the discussion above, the applicant submits that the independent claims as presented herein are not anticipated by Bhat, because each and every

element as set forth in the claims is not found, either expressly or inherently described in Bhat. In summary, the applicant submits that Bhat does not describe each and every element set forth in claims 1, 19, and 20, and therefore, the rejections of those claims should be withdrawn. Further, the applicant submits that all of the claims presented herein are nonobvious in view of Bhat, Weber, and Gbhat, because the references do not teach or suggest all of the claim limitations of any of the claims presented herein.

Amendments, and Dependent Claims in General

The applicant submits that all of the dependent claims are novel and nonobvious for at least the reasons discussed above with regard to the independent claims.

Further, as an example, the applicant submits that dependent claim 4 includes at least the following additional limitations that are not described in Bhat, and that are not taught or suggested by Bhat, Weber, or Gbhat:

obtaining information from the CIMOM includes obtaining information about all Disk Array Systems managed by the CIMOM, and information about all Volumes, Disks, Disk Groups, and Storage Pools corresponding respectively with each of the Disk Array Systems managed by the CIMOM, and information about relationships between all of the corresponding Volumes, Disks, Disk Groups, and Storage Pools.

Some of the claim amendments in this amendment were made to clarify the wording and to correct typographical errors.

Conclusion

In summary, the applicant respectfully submits that the claims as presented herein are directed to statutory subject matter, and are novel and nonobvious in view of the cited references. In conclusion, the applicant respectfully submits that the application is in condition for allowance, and applicant requests reconsideration and further examination, and allowance of the application. Any additional fees required in connection with this amendment that are not specifically provided for herewith are authorized to be charged to Deposit Account No. 09-0466 in the name of International Business Machines Corporation.

Respectfully submitted,

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